Remarks

In the Office Action dated July 16, 2004, claims 30-35, in the above-identified U.S. patent application were rejected. Reconsideration of the rejections is respectfully requested in view of the above amendments and the following remarks. Claims 30-35 are under consideration and claims 36-39 have been withdrawn.

Claims 33-35 were rejected under 35 USC §112, second paragraph, as indefinite. Claim 33 was found indefinite due to the term "a double-fluorescence detection method". Applicants respectfully point out that this language is clearly defined on page 3, lines 8-11 and page 7 of the present application as two different fluorescent labeling groups attached to two different binding molecules. Claims 34 and 35 were found indefinite due to the language "having a binding specificity equivalent to monoclonal antibody IIIF10". Claim 34 has been amended to clarify that the antibody or antibody fragment has a binding specificity to the epitope 52 - 60 of uPAR. Claims 30-35 were rejected as indefinite due to the term "reaction". Claims 30-35 have been amended to clarify that the antibody binds to the antigen/tumor cells. In view of the above discussed disclosure and amendments, applicants request that these rejections be withdrawn.

Claims 34-35 were rejected under 35 USC §112, first paragraph, as lacking enablement. Applicants respectfully point out that the complete CDR sequences coding for the variable domains of IIIF10 are recited in the specification (page 10, lines 23-31 to page 11, lines 1-12 and SEQ ID NOS: 1/2

and 3/4). In view of this disclosure a person skilled in the art could easily produce the necessary antibodies using routine recombinant molecular biology methods. In view of the CDR sequences in the present application and the knowledge and skill in this filed, applicants contend that a deposit is not necessary to enable the present invention.

Claims 30-35 were rejected under 35 USC §112, first paragraph, as lacking an adequate written description for uPAR from sources other than humans. Claims 30-35 have been amended to clarify that the antibody or antigen-binding fragment thereof, binds to the epitope 52-60 of the human urokinase receptor (uPAR). In view of these amendments, applicants request that this rejection be withdrawn.

Claims 30-35 were rejected under 35 USC §112, first paragraph, as lacking enablement. As discussed above, claims 30-35 have been amended to clarify that the antibody or antigen-binding fragment thereof, binds to the epitope 52-60 of the human urokinase receptor (uPAR). In view of this amendment, applicants request that this rejection be withdrawn.

Claim 35 was rejected under 35 USC §112, first paragraph, as lacking enablement. The office action contends that the recited sequences are not sufficient to ensure that the antibody has the required binding specificity. Claim 35 depends from claim 34 which recites "an antibody or antibody fragment having a binding specificity to the epitope 52-60 of uPAR". Thus, in claim 35 the antibody would have a binding specificity equivalent to monoclonal antibody IIIF10 and in addition would have the recited sequences. One skilled in the art

could easily produce an antibody with the sequences shown in claim 35 and test the antibody for binding specificity using only routine experimentation.

Claims 30-35 were rejected under 35 USC §103(a) as unpatentable over Dano in view of Luther, Heiss and Terstappen. Dano discloses a method using antibodies to uPAR in a sandwich type ELISA for the diagnosis of tumors. Dano does not suggest using two labeled antibodies in a double fluorescence detection method or an antibody which binds to the epitope 52-60 of uPAR. Terstappen discloses a method for monitoring leukemia using fluorescently labeled monoclonal antibodies and examining the cells using flow cytometry but does not disclose an antibody which binds to the epitope 52-60 of uPAR. Heiss used a double labeling technique to detect disseminated tumor cells in bone marrow. Heiss simultaneously detected cytokeratin 18 and the uPA receptor using dark red and black stains not fluorescence and does not disclose an antibody which binds to the epitope 52-60 of uPAR. Luther discloses several anti-uPAR antibodies but does not indicate that the IIIF10 antibody can discriminate the epitope 52-60 of uPAR from a normal cell and the same epitope from a tumor cell.

Applicants respectfully point out that the present invention uses antibodies directed against epitope 52-60 for prognostic purposes. The present specification discloses at page 6, lines 20-21 and page 8, lines 29-31 to page 9, lines 1-7, that the antibodies used in the present invention are suitable for recognizing tumor specific uPAR. Surprisingly, these antibodies are particularly suitable for providing prognostically valuable data about tumor patients after

surgery. Example 3 and Figure 10 in the present application show the prognostic relevance of the present invention. As discussed in example 3, not all ELISA systems show this prognostic relevance. Since the combination of prior art references does not suggest or disclose that antibodies can discriminate epitope 52-60 on a normal cell from the same epitope on a tumor cell, and that these antibodies can be used to predict a malignant disease, applicants request that this rejection be withdrawn.

Applicants respectfully submit that all of claims 30-35 are now in condition for allowance. If it is believed that the application is not in condition for allowance, it is respectfully requested that the undersigned attorney be contacted at the telephone number below.

In the event this paper is not considered to be timely filed, the Applicant respectfully petitions for an appropriate extension of time. Any fee for such an extension together with any additional fees that may be due with respect to this paper, may be charged to Counsel's Deposit Account No. 02-2135.

Respectfully submitted,

By _____

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